

CLAIMS:

1. A piezoelectric device comprising:
a driver component having piezoelectric properties;
a movable component adapted to move relative to the driver component;
5 and
a friction liner interposed between the driver component and the movable
component and having a plurality of projections oriented such that a
wave moving through the driver component acts against some or all
of the plurality of projections to thereby cause the movable
10 component to move.
2. The piezoelectric device as set forth in claim 1, wherein the driver
component is a stator and the movable component is a rotor.
- 15 3. The piezoelectric device as set forth in claim 1, wherein the friction
liner is coupled with a surface of the movable component.
4. The piezoelectric device as set forth in claim 1, wherein the friction
liner is adapted to facilitate transferring momentum and torque from the driver
20 component to the movable component.
5. The piezoelectric device as set forth in claim 1, wherein the some
or all of the plurality of projections are adapted to bend in response to the wave
in the driver component, thereby storing energy for transfer to the movable
25 component.
6. The piezoelectric device as set forth in claim 1, wherein the plurality
of projections are oriented to project perpendicularly from the movable
component toward the driver component.
- 30 7. The piezoelectric device as set forth in claim 1, wherein the plurality
of projections are oriented to project non-perpendicularly from the movable
component toward the driver component.

8. The piezoelectric device as set forth in claim 1, wherein the wave is a traveling wave.

9. The piezoelectric device as set forth in claim 1, wherein the wave is a standing wave.

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10. A piezoelectric device comprising:
a stator having piezoelectric properties;
a rotor adapted to move relative to the first component; and
a friction liner interposed between the stator and the rotor having a plurality of
5 projections oriented such that a wave moving through the stator acts
against some or all of the plurality of projections, and wherein the
plurality of projections are adapted to receive, store, and release to the
rotor an energy associated with the wave, thereby facilitating a transfer
of momentum and torque from the stator to the rotor.

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11. The piezoelectric device as set forth in claim 10, wherein the friction
liner is coupled with a surface of the rotor.

12. The piezoelectric device as set forth in claim 10, wherein the plurality
15 of projections are oriented to project perpendicularly from the rotor toward the stator.

13. The piezoelectric device as set forth in claim 10, wherein the plurality
of projections are oriented to project non-perpendicularly from the rotor toward the
stator.

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